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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,787	04/21/2004	Anthony D'Agostino	1744	5077

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AMIN, TUROCY & CALVIN, LLP
1900 EAST 9TH STREET, NATIONAL CITY CENTER
24TH FLOOR,
CLEVELAND, OH 44114

EXAMINER
MILLER, BRANDON J

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/828,787	D'AGOSTINO ET AL.
	Examiner	Art Unit	
	Brandon J. Miller	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 September 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-28</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-28</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>21 April 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 9/20/2006 has been entered.

Response to Amendment

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1, 3-9, 11-15, and 17-25 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Yamada (US 2001/0044332 A1) in view of Watanabe (US 6,542,726 B2).

Regarding claim 1 Yamada teaches a power management system for a portable

information device (see paragraphs [0002] & [0042], power-saving-mode switching program

relates to power management system). Yamada teaches a configuration bank that stores power

management schemes (see paragraphs [0002] & [0050], recording medium, in which power-

saving-mode switching program is stored relates to configuration bank that stores power

management schemes). Yamada teaches a power management component that utilizes at least

one power management scheme to selectively control power to one or more portions of the

portable terminal (see paragraph [0049], changing power to LCD relates to one or more portions of the device that are selectively controlled). Yamada teaches maintaining power to a central process unit (CPU) while removing power from portions of the portable information device to reduce power consumption (see paragraph [0048] & [0049], CPU power is supplied while supply voltage to LCD is reduced). Yamada does not specifically teach a wireless mobile terminal and maintaining full power to a central processing unit (CPU) and a network radio of the wireless mobile terminal to ensure reliable uninterrupted network communication while removing power from other portions of the wireless mobile terminal. Yamada does teach a portable information device such as a notebook computer (see paragraph [0061]). Watanabe teaches a wireless mobile terminal and maintaining full power to a central processing unit (CPU) and a network radio of the wireless mobile terminal (CPU controls radio unit for network connection (see col. 4, lines 44-49)) to ensure reliable uninterrupted network communication while removing power from other portions of the wireless device (see col. 4, lines 56-64, in "SLOW" mode the CPU operates as it does in "FULL" mode while system clock signal for execution of programs operates at lower frequency, this relates to maintaining full power while removing power from other portion of the device). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a wireless mobile terminal and maintaining full power to a central processing unit (CPU) and a network radio of the wireless mobile terminal to ensure reliable uninterrupted network communication while removing power from other portions of the wireless mobile terminal because a portable computer can be wireless and the CPU in Yamada maintains power while reducing power to other portions of the device allowing for improved power saving functions for a portable device.

Regarding claim 3 Yamada teaches the power management component is activated to remove poser via one of: a time lapse; a period of inactivity; an interrupt; an event; a user request; a programmatic application program interface (API); network data; an application, the wireless mobile terminal, and another wireless mobile terminal (see paragraph [0048]).

Regarding claim 4 Yamada teaches the power management component is activated to resume power via one of: pressing a button; turning a key; touching an active touch screen area; a programmatic control; voice; expiration of a timeout; a date; an electrical current; a request; a signal; motion; a trigger; a link status change; a network keep alive; a proxy-ARP packet; a re-authentication packet; a directed packet; wake-on-LAN request; and reception of network data (see paragraphs [0053]).

Regarding claim 5 Yamada teaches the power management component executes as a background application (see paragraphs [0021] & [0023]).

Regarding claim 6 Yamada teaches the power management component automatically executes the power management scheme to reduce power consumption or waits for user confirmation (see paragraphs [0023] & [0024]).

Regarding claim 7 Yamada teaches the power management component executes in one of wireless mobile terminal BIOS, an application, an external device, and a wireless mobile terminal operating system (see paragraphs [0002] & [0057]).

Regarding claim 8 Yamada teaches the power management component utilizes one of intermittent and continuous polling of the wireless mobile terminal to automatically determine when power should be reduced and dynamically applies the power management scheme to reduce power (see paragraph [0048]).

Regarding claim 9 Yamada teaches the power management scheme is based on at least

one of a wireless mobile terminal characteristic, a state of one or more portions of the wireless

mobile terminal, a user identified configuration, and a user attribute (see paragraph [0048]).

Regarding claim 11 Yamada teaches the power management scheme is one of a default, a

user defined, an application generated and an intelligence created configuration (see paragraphs

[0023] & [0048]).

Regarding claim 12 Yamada teaches the intelligence created configuration is generated

based on at least one of machine learning, a statistic, a probability, an inferences and/or a

classifier (see paragraphs [0024] & 0048]).

Regarding claim 13 Yamada teaches an API that is utilized for at least one of invoking the

power management component and providing a power management scheme (see paragraph

[0048]).

Regarding claim 14 Yamada teaches a method that manages power for a portable

terminal (see paragraphs [0002] & [0042], power-saving mode switching program relates to

power management system). Yamada teaches receiving indicia indicating power should be

removed from a portion of the portable terminal (see paragraph [0049] and Fig. 4, LCD receives

indicia indicating power change from LCD changing portion). Yamada teaches removing power

from the portion of the portable terminal to reduce battery power consumption (see paragraph

[0049] & [0061], changing power to LCD relates to one or more portions of the device that are

selectively controlled). Yamada does not specifically teach maintaining reliable uninterrupted

portable terminal network connectivity at least by supplying full power to a central processing

unit (CPU) and a network radio. Watanabe teaches maintaining reliable uninterrupted portable

terminal network connectivity at least by supplying full power to a central processing unit (CPU) and a network radio (see col. 4, lines 44-60 & 56-64, CPU controls radio unit for network connection and in "FULL" mode, full power is supplied to both CPU and network radio). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include maintaining reliable uninterrupted portable terminal network connectivity at least by supplying full power to a central processing unit (CPU) and a network radio because the CPU in Yamada maintains power while removing power from other portions of the device allowing for improved power saving functions for a portable device.

Regarding claim 15 Yamada teaches obtaining a power management configuration that defines a power removal scheme (see paragraph [0049]).

Regarding claim 16 Nichols, III teaches sustaining power to a CPU and a network radio of the portable terminal to ensure reliable network communications (see paragraphs [0018] & [0022]).

Regarding claim 17 Fan teaches the power management component is activated to remove poser via one of: a time lapse; a period of inactivity; an interrupt; an event; a user request; a programmatic application program interface (API); network data; an application, the wireless mobile terminal, and another wireless mobile terminal; pressing a button; turning a key; touching an active touch screen area; a programmatic control; voice; expiration of a timeout; a date; an electrical current; a request; a signal; motion; a trigger; a link status change; a network keep alive; a proxy-ARP packet; a re-authentication packet; a directed packet; wake-on-LAN request; and reception of network data (see paragraph [0048]).

Regarding claim 18 Yamada teaches a device as recited in claim 4 and is rejected given the same reasoning as above.

Regarding claim 19 Yamada teaches a power management method that facilitate distribution of power to portions of a portable computing device (see paragraphs [0002] & [0042], power-saving mode switching program relates to power management method). Yamada teaches detecting that power should be removed from at least a portion of the wireless computing device (see paragraphs [0042] & [0049] and Fig. 4, LCD detects that power should be removed). Yamada teaches retrieving an associated power management scheme; and employing the power management scheme to remove power from the portion of the wireless computing device while sustaining power to the wireless computing device's CPU (see paragraph [0048] & [0049], CPU power is supplied while supply voltage to LCD is reduced). Yamada does not specifically teach removing power from portions of a wireless computing device while sustaining full power to the wireless computing device's central processing unit (CPU) and network radio to provide an uninterrupted channel of communication with a network. Yamada does teach a portable information device such as a notebook computer (see paragraph [0061]). Watanabe teaches a wireless mobile terminal and maintaining full power to a central processing unit (CPU) and a network radio of the wireless mobile terminal (CPU controls radio unit for network connection (see col. 4, lines 44-49)) to ensure reliable uninterrupted network communication while removing power from other portions of the wireless device (see col. 4, lines 56-64, in "SLOW" mode the CPU operates as it does in "FULL" mode while system clock signal for execution of programs operates at lower frequency, this relates to maintaining full power while removing power from other portion of the device). It would have been obvious to one of ordinary skill in

the art at the time the invention was made to make the device adapt to include removing power

from portions of a wireless computing device while sustaining full power to the wireless

computing device's central processing unit (CPU) and network radio to provide an uninterrupted

channel of communication with a network because a portable computer can be wireless and the

CPU in Yamada maintains power while reducing power to other portions of the device allowing

for improved power saving functions for a portable device.

Regarding claim 20 Yamada teaches a device as recited in claim 8 and is rejected given

the same reasoning as above.

Regarding claim 21 Yamada teaches dynamically adjusting the power applied to the at

least one portion of the wireless computing device (see paragraphs [0042] & [0049]).

Regarding claim 22 Yamada teaches drawing less power from a battery utilized to power

a portable terminal (see paragraph [0061]).

Regarding claim 23 Yamada teaches a device as recited in claim 11 and is rejected given

the same reasoning as above.

Regarding claim 24 Yamada teaches employing intelligence to facilitate managing the

power applied to the at least one portion of the wireless computing device (see paragraph [0024]

& [0025]).

Regarding claim 25 Yamada teaches a device as recited in claim 12 and is rejected given

the same reasoning as above.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada (US

2001/0044332 A1) in view of Watanabe (US 6,542,726 B2) and Schneider (US 2005/0015618

A1).

Regarding claim 26 Yamada teaches a system that facilitates portable information device power management (see paragraphs [0002] & [0042], power-saving mode switching program relates to power management method). Yamada teaches means for determining when to activate power management; and means for acquiring a selective power management configuration (see paragraphs [0041] & [0042], monitoring means determines when to activate power management). Yamada teaches means for applying the power management configuration to selectively lower power applied to portions of the terminal to mitigate power consumption while maintaining power to a CPU (see paragraph [0048] & [0049], CPU power is supplied while supply voltage to LCD is reduced). Yamada does not specifically teach a wireless mobile barcode scanner and lowering power applied to portions of the wireless device while maintaining full power to a CPU and a network radio to ensure reliable uninterrupted network communication. Yamada does teach a portable information device such as a notebook computer (see paragraph [0061]). Watanabe teaches a wireless mobile terminal and maintaining full power to a central processing unit (CPU) and a network radio of the wireless mobile terminal (CPU controls radio unit for network connection (see col. 4, lines 44-49)) to ensure reliable uninterrupted network communication while removing power from other portions of the wireless device (see col. 4, lines 56-64, in "SLOW" mode the CPU operates as it does in "FULL" mode while system clock signal for execution of programs operates at lower frequency, this relates to maintaining full power while removing power from other portion of the device). Schneider teaches a wireless mobile barcode scanner (see paragraph [0009]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a wireless mobile barcode scanner and lowering power applied to portions of the wireless

device while maintaining full power to a CPU and a network radio to ensure reliable

uninterrupted network communication because a portable computer can be wireless and the CPU

in Yamada maintains power while reducing power to other portions of the device allowing for

improved power saving functions for a portable device.

Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada

(US 2001/0044332 A1) in view of Watanabe (US 6,542,726 B2) and Brubacher-Cressman et al.

(US 2005/0192063 A1).

Regarding claim 27 Yamada and Watanabe teach a device as recited in claim 1 except for

polling at least one disparate component associated with a wireless mobile terminal to determine

frequency of use, the frequency of user employed to control a level of power to the disparate

component. Brubacher-Cressman teaches creating a log of at least one disparate component

associated with a wireless mobile terminal to determine frequency of use, and using the

frequency of use to control a level of power to the disparate component (see paragraph [0041],

log file of backlight usage relates to polling at least one component associated with a wireless

device to determine frequency of use). It would have been obvious to one of ordinary skill in the

art at the time the invention was made to make the device adapt to include polling at least one

disparate component associated with a wireless mobile terminal to determine frequency of use,

the frequency of user employed to control a level of power to the disparate component because a

portable computer can be wireless and power management is applied to the LCD in Yamada,

allowing for improved power saving functions for a portable device.

Regarding claim 28 Yamada and Watanable teach a device as recited in claim 14 except

for populating a log with utilization of components of the portable terminal according to time of

day; and utilizing the history log to ensure power is provided to components of the portable

terminal based at least in part upon a comparison between the time of day the component

experiences a high-level of use and the current time of day. Brubacher-Cressman teaches

populating a log with utilization of components of the portable terminal according to time of day;

and utilizing the history log to ensure power is provided to components of the portable terminal

based at least in part upon a comparison (see paragraph [0041], log file of backlight usage relates

to history log). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to make the device adapt to include populating a log with utilization of

components of the portable terminal according to time of day; and utilizing the history log to

ensure power is provided to components of the portable terminal based at least in part upon a

comparison between the time of day the component experiences a high-level of use and the

current time of day because a portable computer can be wireless and power management is

applied to the LCD in Yamada, allowing for improved power saving functions for a portable

device.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-9, 11-15, and 17-28 have been

considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Tourrilhes et al. Pub. No.: US 2003/0050103 A1 discloses a power management scheme

for a communication interface of a wireless device.

Peng et al. Pub. No.: US 2004/0082362 A1 discloses a method for power management of a smart phone.

Lencevicius et al. Pub. No.: US 2004/0204183 A1 discloses a power management profile on a mobile device.

Carballo et al. Pub. No.: US 2004/0203477 A1 discloses an interface transceiver power management method and apparatus including controlled circuit complexity a power supply voltage.
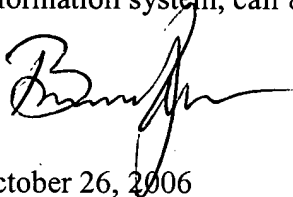
Vensuna Pub. No.: US 2006/0116179 A1 discloses a system and method for optimizing power consumption in a wireless device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 26, 2006

GEORGE ENG
SUPERVISORY PATENT EXAMINER